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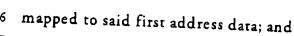
What is claimed is:

A method of transmitting packets between first and second networks of different address formats, comprising the steps of:

- receiving, from a first network, a packet containing first address data conforming to said first network and second address data conforming to a second network, said first address data being contained in a packet header of the packet and said second address data being contained in an auxiliary header of the packet;
- rewriting said first address data with said second **b**) address data; and
 - transmitting the packet to said second network.
- The method of claim 1, wherein said auxiliary 1 header further contains auxiliary information.
 - The\method of claim 2, wherein the step (b) further comprises eliminating from said packet a field in which said second address data is contained.
- The method of claim 1, wherein the step (b) further comprises writing said first address data into said auxiliary header.
- The method of claim 1, wherein the step (b) 1 comprises the steps of:
- making a search through a received packet; 3
- examining a database if said auxiliary header is not

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contained in the received packet and detecting address data



converting the first address data with the detected

address data.

6 An address converter for use in a gateway connected between first and second networks of different address formats, comprising:

receive means for receiving, from said first network, a packet containing first address data conforming to said first network and second address data conforming to said second network, said first address data being contained in a packet

header of the packet and said second address data being

contained in an auxiliary header of the packet;

control means for rewriting said first address data with 10 said second address data; and

transmit means for transmitting the packet to said second 12 network. 13

The address converter of claim 6, wherein said auxiliary header further contains auxiliary information.



- The address converter of claim 7, wherein the control means is arranged to eliminate, from said packet, a field in which said second address data is contained.
- The address converter of claim 6, wherein said control means is arranged to write said first address data into said auxiliary header.
- 10. The address converter of claim 6, wherein said control means comprises a database and is arranged to:
- make a search through a received packet;

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- examine said database if said auxiliary header is not contained in the received packet and detecting address data mapped to said first address data; and convert the first address data with the detected address
- 8 data.